

Still Alive With Sir Clive!

ZXir QLive Alive!

The Timex/Sinclair North American User Groups
Newsletter

Volume 4 Number 4

Winter 94

Chairman

Donald S. Lambert

Auburn, Indiana

MEMORY MAP




ADDRESS

ROUTINES

This is the last issue of Volume 4

Volume 5 starts with the (April) Spring 1995 Issue.

Please mail in your contributions before April 95.

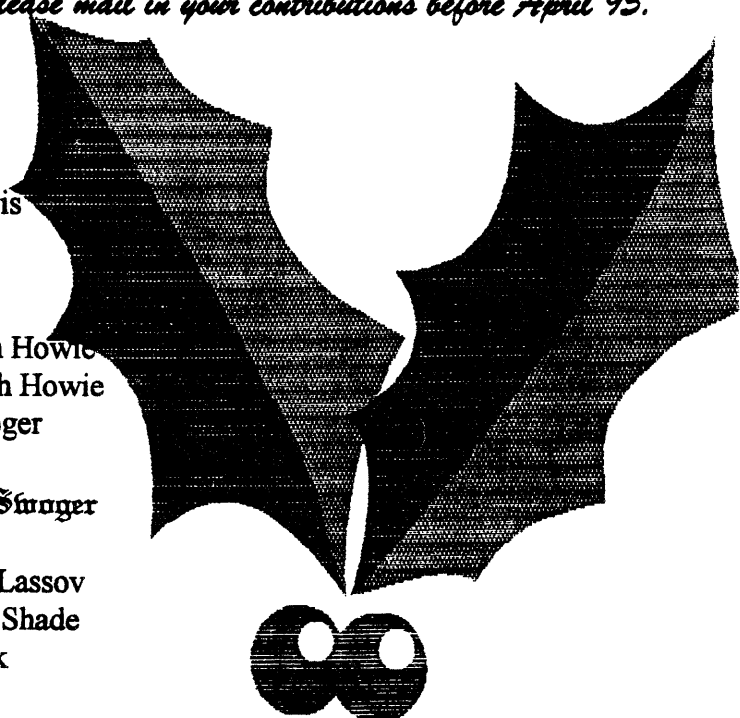
- 2 T/SNUG Information and Chairmen
- 3 Input/Output - Copyright©
- 4  Z88 Library
- 5 AERCO — RMG
- 6 Please Pass the Windex
- 7 From The Chairman's Disk
- 7 1994 Update by UPDATE! — Frank Davis

ARTICLES

- 8 A Surprise Box of Tricks - Z88 — Hugh Howie
- 9 The Z88 and Its Power of Recovery—Hugh Howie
- 10 JLO with LKDOS Cartridge — Bob Swoger
- 11 Sinclair INTERNET — John Pazmino
- 11 Christmas Return Labels — Bob Stanger
- 14 Daisy Be Good I — David Lassov
- 15 Daisy Be Good Update Part 1 — David Lassov
- 16 The Best of LarKen Windows — Robert Shade
- 17 Z88 Batteries FeedBack — Mort Binstock

SUBROUTINES

- 18 Unclassified Ads
- 23 RMG Updates
- 28 ZQA! 1991 - 1994 Index



Timely Early Issue



MERRY CHRISTMAS
TO: All Our Members
FROM: The Staff And Contributors
ZXir QLive Alive!

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Established 1991

The Timex/Sinclair North American User Groups Newsletter

Volume 4 Number 4

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T/SNUG Information

T/SNUG

Here is the list of T/SNUG Chairmen and how to contact them. We wish to support the following SIGs:- ZX-80/81, TS-1000, SPECTRUM, TS-2068, TC-2068, Z88 and QL. If you have any questions about any of these fine machines, contact the:

Chairman

Chief Motivator

Donald S. Lambert (ISTUG)

Vice-Chairmen

Tape & JLO PD Library

D. G. Smith

R 415 Stone St.

Johnstown, PA 15906

814 535-6998

Z88 Library

Dave Bennett (HATSUG)

329 Walton St. Rear

Lemoyne, PA 17045

717 774-7531

ZX-81 PD Tape Library

Ed Snow

2136 Churchill Downs Cir.

Orlando, FL 32825

407 380-5124

RMG Enterprises

Rod Gowen (CCATS)

14784 S. Quail Grove Cir.

Oregon City, OR 97045

503 655-7484 FAX 503 655-4116

TS-2068

Rod Humphreys (VSUG)

10984 Collins Pl.

Delta, BC V4C 7E6 Canada

604 583-2819

QL PD Library

John Donaldson (CATUG)

835 Foxwood Cir.

Geneva, IL 60134-1631

708 232-6147

BBS — GATOR

Bob Swoger (CATUG)

613 Parkside Cir.

Streawood, IL 60107-1647

708 837-7957 Work 708 576-8068

Editor/Treasurer

LarKen PD Library

Abed Kahale (CATUG)

335 W. Newport Rd.

Hoffman Estates, IL 60195-3106

ZXir QLive Alive!

Is the newsletter of T/SNUG, the Timex/Sinclair North American User Groups, providing news and software support to the T/S community in a **volume** of four newsletters per year; beginning with the Spring (April) issue.

T/SNUG's main goal is to keep our Magazine, our vendors and our repair service alive for the benefit of T/S users.

These valuable services shall have free advertising space in this user supported Newsletter that they can see that we are still active out here. We must support their services whenever possible.

Another T/SNUG goal is to unearth titles of all known Public Domain and commercial software available for all Timex/Sinclair machines, building a library and providing lists of that software showing both the source and the availability.

We encourage your group to copy this newsletter and distribute it at your regular meetings to all your members. If you cannot copy this newsletter, a disk can be provided with the articles for use in your newsletter.

If you feel T/SNUG should perform other tasks, let us know your feelings. If you have solved a problem in one of your software or hardware, please share it with the rest of us.

You can keep T/SNUG alive by an annual contribution of \$12 for one volume made payable to Abed Kahale. Send check to:-

ABED KAHALE
335 W NEWPORT RD
HOFFMAN ESTATES IL 60195-3106

Phone:- 708 885-4337

Back Newsletter copies are available for 50¢ each postpaid.

Article Contributions

Send in your articles by tape or disk and your inputs to:-

DON LAMBERT

ZXir QLive ALive! Newsletter

1301 KIBLINGER PL

AUBURN IN 46706-3010

Phone 219 925-1372

Or to: — Abed Kahale.

GATOR's TWISTED PAIR

!! SINCLAIR !!

We have a 24 hour BBS and encourage you to exchange mail and contribute to the Upload Section. Use it and have fun!! (8N1 300-2400 BAUD)

Call 708 632-5558

and Register using your first name, last name and phone number along with a password you won't forget, and Write It Down! Do not try to do anything else this first time because all the board options will be locked out.

When you call-in the next time, you will have Level 5 security and be able to enjoy full user privileges. The BBS has smaller sections called conferences. Select 'J' for 'Join a Conference' to see the different user groups. Select "TIMEX" to get into the Sinclair Section. The mail you then read will only be from other TIMEX Sinclair users but all SIGs share the same bulletins. Use extension .ART for articles, .ADS for ads and .NWS for news when uploading.

Download articles appearing in this newsletter having .ZQA extension.

For help, contact the SYSOP by leaving a message, mail, e-mail or phone. Bob Swoger, SYSOP ----GATOR----

Input/Output

by *Abel Kahale*

Copyright©

Dear Mr. Kahale,

Thank you for your recent letter and the copy of your publication. The reason for the call to Mr. Lambert was the report that an advert for IQLR appeared in your publication, WITHOUT our knowledge or consent.

If you look at the advert you will see the reason for our concern, for the past 4 months we have had an address change but, it seems no one checks to see if the information is valid.

As I stated to Mr. Lambert, IQLR is copyright protected, both in content and in the names "IQLR and International QL Report". We will take action if required, to stop the unauthorized use of content and/or name.

This problem could have been taken care of before it occurred if someone had contacted us. But, alas that didn't happen. We know your intentions were to serve the Sinclair community, this is admirable, but who is served when incorrect information is published?

This is not the first time something has appeared in your publication concerning me or IQLR that was not correct. I can think of two other instances where I was misquoted, it is for this cause that I inform you, that we DO NOT wish or authorize the printing of an advert or any material printed in IQLR to be published in your publication.

Regards,
Robert Dyl, Sr.
Publisher of IQLR
PO BOX 3991 NEWPORT RI 02840-0987 USA

We do not publish copyrighted materials without permission. However, thank God for the First Amendment, we can publish any news worthy item. We suggest that you post a copyright notice © to make it legal and enforceable such as; IQLR® 199x and your name to appear somewhere on that page. The flyers you mailed us and UPDATE! Magazine

North American and all other subscribers - please post this form plus the applicable payment that covers your area (listed on the other side of this form) to :

IQLR
15 Kilburn Court
Newport, RI 02840
USA

did not contain any such notice and therefore were public domain. You should send a copy of IQLR to the US and overseas copyright offices and have it registered. As far as the IQLR name, what you need is to register a TradeMark such as GM®, IBM® etc. Which is altogether another subject.

Good luck, take it easy and keep up the good work.

Editor

Quote:-

"Copyright is secured by publication of the work with the notice required by the statute, and this notice must appear in each copy of the work published in the United States by authority of the copyright owner. Such publication without the notice places the work in the public domain. The form of notice, which is required for literary, musical and dramatic works and may be used on any other works, consists of the word "Copyright" ... or the copyright symbol © accompanied by the initials or other mark of the copyright owner, provided that the owner's name appears in some accessible place on the copies or on their permanent base or mounting.

After copyright has been secured by publication of the work with the required notice, copies of the work are to be deposited in the US copyright office together with an application and fee for registration of the copyright claim. The copies deposited are made available to the Library of Congress. Registration of the copyright claim is a prerequisite to any action in the courts for the infringement of the copyright. The copyright office issues a certificate of registration which is prima-facie evidence in any court of the facts stated in the certificate. The copyright endures for 28 years from the date of first publication"

Daisy Be Good

Thank you for putting out such a fine newsletter...

Here are 5 menus promised to accompany our two articles for the next issue of ZQA! They are all genuine snapshots (COPY) of the menus as described in the article. They use Wes Brzozowski's routine, that employs interrupt mode 2 to call COPY in ROM.

The UPLOADing went fine (to BBS at 708 632-5558). The first article is Daisy11.ART. It describes Daisy as received from Frank Davis. It was transferred under ASCII protocol. The second is Daisy21.ART. It treats our new and improved version in which everything works, even where Bill Jones was having trouble. It was UPLOADED under Xmodem protocol.

The two UPLOADs deferred because we wanted to see any difference in timing. Well, as you probably already

know, Xmodem went faster. But we were surprised to find the ASCII transferred line-for-line, as if read of the screen.

Anyway, there are the first pair of articles, and we welcome any comments, criticism, contribution, quotes, questions or concerns as the series of articles develops.

We are looking at CASboard, JObbs and MaxCom for extension to 1200 and 2400 BAUD. 4800? Anyone?

David E. Lassov

Thank you. Your efforts are appreciated by all those of us who experienced Daisy.B6. After I acquired the Suite from Bill Jones and after several phone calls to him I found out that he meant what he said; "It takes about two years to learn all the ins-and-outs of Daisy and Udbm suite".

Daisy is copyrighted program(s), we can only publish your revisions/modifications. Unless you have contributed to more than a half to the program(s).

Using Xmodem protocol when UPLOADing text is fine provided that the recipient has and uses the same word processor that you have used. Editor

Z88 Library

The Z88 Users' Club based in England has ceased to exist. A few years ago I contacted the Club Librarian and ordered the entire library up to file number 132.

Now the number of files totals 212. I can provide these files on Mac or MSDOS 3 1/2" floppy disks only. The files are free. My only charge is for the disks and postage.

The files are not public domain but owned by the club. However I can distribute them to T/SNUG members only on the understanding that they are for their personal use and not to be uploaded onto any Bulletin Board or other file server.

The files are numbered only. You need a list to tell you what they are. You can get this information out of individual issues of the Club Magazine. The former software librarian sells a list for £1.50 plus postage, which is approximately \$5.00.

IAN BRABY

1 BUTTS COTTAGES COPSE RD
ST. JOHN, WOKING GU21 1SU
UNITED KINGDOM

Its purchase will fund the on-going support of the Library and its contents.

Also available are some public domain files. These are the same files that come with the "Z88 Source Book" published by UPDATE! magazine. I can be contacted at the address in this newsletter (page 2). Or by phone on evenings and some weekends. I belong to the GENie service. You can address e-mail to D.BENNETT34. Or to d.bennett34@genie.geis.com through the INTERNET.

Dave Bennett

Please remove my ad that I highlighted from our Newsletter. It was effective and I have gotten all I needed. Thanks for running the ad.

Wayne Knaust
St. Peters, MO

I enjoy reading the Newsletter, I have been using the INTERNET and I stumbled onto Timex/Sinclair information. If you or your readers have access to the INTERNET you may find some of the information very interesting.

Alex Sweitzer
Fayette City, PA

The CLONE

...As far as the CLONE goes, SINCUS is no longer distributing it, but it is copyrighted. As the author, I no longer have any plans for it, so I suppose I can grant permission for you to distribute the program... how about if you keep me on your subscription list for as long as you distribute CLONE? Does that sound fair?

Wes Brzozowski
Endicott, NY

It sure does Wes.

Editor

Still Alive With Uncle Clive

...I think that I may have accidentally started a rumor. First I believe I said that I thought it was possible to handle the 9600 transfer rate on a 2068. I still believe so. I had a spectrum RS-232 interface which would handle data transfer at that speed. The software was burned into an EPROM and used by making calls to a short MC routine. It has been sometime since I have seen it but will see what I can do when I find it and the instructions. The other interface I had was that produced by Dave Clifford and later sold by Ed Grey. Used with the Spectrum, the UK software they sold, it may have also been able to handle this speed. Now I recall that on the 2068 there was a problem with the buffer filling up too quickly and there was some other problem as I recall. Perhaps 2400 was the top speed. I will try to check this out again when I have some time. I lent out the Clifford interface several years ago and never got it back so I only have the software for the terminal.

These days I use the PC for most things although I fire up the Spectrum emulator on occasion. Our user group, the Cleveland Group, has become a semi-social user group mainly interested in generic computer topics, although we have a few exclusively Sinclair Users, most have a Sinclair besides a PC. We never had the large QL user base that some clubs had so the QL never became a priority for the general membership. I bailed out of the QL because of persistent hardware problems. Now most of these things have been solved but too late for me as I moved to the PC about 89.

We are having our annual Christmas party and sale, the first Friday of December, we will invite any Sinclair club members who wish to come to Cleveland. ...Usually there are very good deals for buyers, sellers may not be so happy but there is a lot of Sinclair and PC stuff for sale... If it is not too bad of a time, see if you can come. Regards.

Thomas Simon, Photographer

615 SCHOOL AVE
CUYAHOGA FALLS OH 44221

Nice of you to send the information you provided us. Also, it is always nice to know of what has happened to all of the Sinclair groups.

Unfortunately this Newsletter will not be mailed in time for the party. How about letting us know in advance next year. Editor

E-Mail

Wes Brzozowski of CLONE tape copier - e-mails:

"Sorry to say, I haven't turned on a 2068 for some time, though I am a registered user of the Z80 Spectrum emulator. My kids have a great time with all the old Spectrum software that's available out there, and I get quite a pang of nostalgia every time I see the familiar old copyright notice appear on the monitor. I have in fact managed to get the latest copy of ZXir QLive Alive!, as they're reprinting a series of articles I wrote many years ago, and have sent me a courtesy copy of the issue with the first installment. The magazine looks very nicely done, and I'm glad to see it out there.

I may yet someday pull out one of the old TS2068s and work with it again. When I last put it away, I'd built a bank switching system that extended beyond the 3 that came with the base machine. The method that Timex would have used to switch those extra banks appeared to be designed to be built into a custom chip with a small pin count, but it was very cumbersome to implement in TTL. Fortunately, the code that actually talked to that bank switching hardware is run from RAM, and it was easy to modify to drive my circuitry, which was designed for a low chip count. It all seemed to work pretty well, and would have been compatible with the never-used code left in the machine by Timex that would have made use of the bank switching. I even had a preliminary article written up on the system, which I was going to send to Time Designs, as a follow-up on my series of Bank Switching articles that were published there. It needed a lot more testing before I'd have sent it out, though. Somehow, there's just never enough spare time.

Anyway, the purpose of all this is that it was an interesting project, and would be fun to continue someday. We'll see... Thanks for the word on Clone. It's nice to know that it's appreciated and still out there doing useful work."

-----GATOR-----

AERCO

As of this writing, RMG Enterprises has just received the last stock of TS hardware that AERCO had left. Jerry Chamkis told me that because of the low demand and the fact that he is too busy with his current work to make it cost effective for him to worry about the little that TS business would bring in, he wanted out of it. RMG will make available all

existing hardware items that AERCO had left as soon as they have been inventoried and priced out.

Stock will include a few CP-68 and some card edges and FD-68 disk interface PCBs. If you are interested, write or call RMG for prices and availability. Phone 503-655-7484 10AM-7PM Tu.-Sat. Pacific time. FAX 503-655-4116 24 hours. Address is in the ADS section in this newsletter.

Rod Gowen

Another MIRACLE?

The long awaited, long rumored Graphics Card from Miracle Systems, may finally be a reality. In the typically understated jargon of the British QL trade, it will simply be called the "Masterpiece Enhanced Graphics Card". It replaces the 8301 chip inside of the QL and packs 128K of RAM. It offers 2 modes: a QL Mode with 512X512 pixels and an Enhanced Mode with 1024X512 pixels. A non-interlaced, SVGA monitor will be required to use the Enhanced Mode. Software to drive the Enhanced Mode is contained on a ROM upgrade chip apparently intended only for the Super Gold Card.

It appears that the "MEGC" will not add any additional colors to the QL's present palette of 4 or 8. A QL source, stated that the color issue is an operating system problem and that it 'may' be addressed by SMSQ in the future. The expected street price for the "MEGC" will be about £50 in the UK.

NESQLUG Nov. 94

SNUG Feedback

I was surprised to see there were still publications for the Sinclair as I had given up on it years ago with difficulties in receiving subscriptions, late mailing etc. I use my QL mainly as a word processor.

I am still curious as to what has happened with the Sinclair QL and if the problems were ever overcome with the occasional dropping of characters when used with a modem.

I am glad that I will finally receive the rest of my subscription in another publication for the Sinclair - UPDATE!

Gyro Burns

Athens, OH

QL is still alive and kicking.

Editor

When I first read of the decision to disburse the SNUG balance I wrote to Paul and requested that my share be used towards my ZXir QLive Alive! renewal. Hence my surprise when I did not find my name among the list of T/SNUG supporters. Here is my check for renewal...

Ruth Fegley

Baltimore, MD

Thanks very much for the notice about SNUG. I thought all the Timex/Sinclair's had bitten the dust, and I am glad to know I was wrong. I still have and use my 2068 and wouldn't trade it for all the IBMs in the world.

For the record, enter me as checking for ZQA! On the card. I also like to know more about UPDATE! and IQLR newsletter. I'd appreciate your sending me a copy of each, for which I'll send you a check by return mail.

Again, many many thanks!

Gertie Anderson
Pacheco, CA

Please Pass The Windex

Wall Street Journal October 94

This column was launched with the contention that personal computers are too hard to use, and that the blame lies not with the people trying to use them but with the *supposed* geniuses who design the machines and the software that runs on them. Each October since, I've tried to take a look at the state of personal computing to assess whether, in general, things are getting easier to use.

Over the past 12 months, steady progress has been made on the margin, but it's slow going. The fundamental complexity and limitations of the IBM-compatible PC design still haunt us, well into its second decade of existence. Things are moving in the right direction but at a snail's pace. Computers are shipping with many more features built in, eliminating the need for users to poke around inside to add things. But anyone who tries to add more, especially to install one of much touted-about multimedia upgrade kits, quickly finds himself in trouble. The same is true of software. Programs have lots more built-in help and colorful icons to click on, but they can still be hellishly confusing to use. Many of the new multimedia programs are nearly impossible even to install correctly.

Just the other day in the Washington Post, a columnist named Tony Kornheiser wrote that he went out and bought a home computer but can't use it. "I sit there staring at a blank screen" he wrote, "waiting for it to do something magical on its own like it is the Oracle at Delphi. The only thing I can do on that screen is Windex it." He is no doubt exaggerating a bit (columnists do that). But even rocket scientists are baffled by personal computers. I once got e-mail from a scientist at NASA who works on giant supercomputers all day with aplomb but goes home at night and finds to his great frustration that he can't get the family IBM-compatible PC to run multimedia software correctly.

For now, we'll struggle along with PCs and software too dumb to be easy. "Please pass the Windex"

November 94

This is the tale of how I ignored my own advice, bought a costly new computer packed with unseasoned, cutting-edge technology and lived to regret it - at least for a while. I tell my story to reinforce the point I've made before in this column: Unless you're an inveterate technology freak, or like being a guinea pig, you should shy away from the early generations of a new chip or other major computer component because it always takes a while for the industry to work out glitches and incompatibilities in these things.

I also tell this little saga to prove that, even if they let you write a technology column in a big newspaper, they can't save you from doing some stupid things with technology. I wanted something fast and cool, and I couldn't wait.

My personal technoblunder, a Dell XPS P90 costing more than \$4000, gave nothing but headaches for the first couple of months I owned it this past Summer. There were failures in the machine's communications, video, audio, CD-ROM and tape backup systems. Dell clearly screwed up in shipping this popular machine without catching and fixing these fundamental flaws. I settled on XPS P90, which also meant I was buying into a new kind of faster hard-disk drive, a relatively recent video system and a new minitower case Dell hadn't used before. This was a recipe for trouble, and it was coming out of my pocket, not the coffers of this newspaper.

I ordered the machine over the phone via normal channels. The first problem cropped up when I tried to play a music CD in the CD-ROM drive and no sound came out. I called Dell toll free support number and was asked if I'd mind opening up the machine. I said no, and we discovered that they'd failed to plug in one end of a wire at the factory. I plugged it in.

Next I discovered that, after making a single call through the modem, the machine's communication system locked up and couldn't make any more calls. This was a flaw somewhere on the mother board. Dell posted software on CompuServe to temporarily solve this problem, and I downloaded it. Eventually, I demanded and received a new mother board.

Then, it turned out that the tape backup drive didn't work properly. Again, Dell put up software fix on CompuServe and I used it and it worked.

But the problems kept on mounting. The machine's video system (card) was flawed. It is incompatible with a popular software. Dell was helpless to fix it, but promptly sent me a slightly slower version that fixed the problem. I installed it myself.

Finally, the CD-ROM drive broke. It refused to play a handful of CDs I tried to run on it. I insisted on a new one, and Dell sent someone to replace it.

So it all worked out, but it took me many weeks, many phone calls and some repair work to get it right-even though, because of my job, Dell was especially anxious to help heal my computer.

What if I hadn't been a technology writer, hadn't known about CompuServe and hadn't been willing to fiddle with the machine's innards? I'm sure Dell would have still been helpful. But I doubt it would have been quite as responsive or that the problems would have been dispatched quite as smoothly.

Meanwhile, you all owe me one. I feel that I, as a brave technology pioneer, have done a public service for the rest of you, wringing the bugs out of this new technology so you don't have to. If you're feeling really grateful for this and can stop laughing, please send money.

Walter Mossberg



FROM THE CHAIRMAN'S DISK

Donald Lambert

ARGH! Winter type weather is here, I have just lost the file, got up to check something and the static electricity — without touching anything — did wipe out the memory of the computer. This is a different computer and maybe more sensitive than the one I used last winter. Guess I will have to SAVE the file and off the computer before leaving the chair.

Received a package of UK magazines from George Chambers (15.6 kg. - 35#) and have looked at some so far. The material is for the ZX-81, the SPECTRUM and the QL although one magazine - YOUR COMPUTER - is devoted to all small computers. An interesting ad is for a PHLOOPY drive - a tape drive for a BBC computer that uses a cartridge of 10 feet of 1/4 inch tape that is loosely tucked into the cartridge and has a 9 track head that doesn't move.

My eye operation is a success and I can SEE much better although I still need to get the other eye brought up with a new prescription. Currently the operated on eye is using a blank lens and the other eye has trifocal. Sort of a one eye cat deal. But not impossible to see glare from headlights during night driving.

The demise of two user groups hit hard. [TTSUC and CCATS]. But there is still action going on, Keith Watson finished the TS-2068 emulator for the IBM PC. Or as far as he can go. If anyone wants to go further they are welcome to do that. I think that it is available through Frank Davis.

KDL COMPUTERS, 122 W. PLATT ST, MAQUOKETA IA 52060, has a limited stock of EPROMs. I met him at a couple of local Hamfests and I ordered some 2764 EPROMs. He is fair and his prices for the used EPROMs are very reasonable. Write him with a LSASE for a price, state how many you want and for a price including shipping for the lot. He has some other EPROMs.

I have some things that I heard of I am trying to get. Some are outstanding but like many T/S things I hate to mention since they could be vapor ware. I would much rather have it in my hands and say look what I got than try to explain that it was vapor ware.

Two people got helped with their TS-2068's with the LarKen interface. One had a set of bad batteries (new) that would not retain memory with the RAMDISK and the other had a drive go bad after running OK for the first time after he received a used LarKen system. The latter was sent all but the disk drive. I tested it out to find it all good. I send him a pair of DSDD drives since the drive he had was single sided. The system worked with my drive(s) but not with the original SSDD drive. Moral: Got problems write and get help. Might take time but it gets you going.

Since this is a hurry up issue (*to bring you a timely Christmas labels program*) I have not had time to expand too much and besides for once I will let someone else fill the space - or maybe a program. 0/0

1984 Update From **UPDATE!**

Frank Davis, UPDATE! Magazine

Q *L World* magazine has sent out its last issue. It has been around since 1983 in one form or another, and under several owners. This does not mean the end of QL computing. It is at its highest rate of technological expansion in its history. The folks publishing it simply did not have the know-how to run a computer magazine. The other publications they handled were of a sports nature, and they never did obtain a high enough number of subscribers to keep afloat a glossy monthly magazine. They have been trying to get someone to take over the publishing, but due to their wants in this matter, no luck yet. In the meanwhile we have other magazines that are more than capable of carrying on. One is IQLR, a QL specific magazine that has grown in the last few years to a level of competence that QL World never did achieve. They have over 2000 subscribers now and are continuing to grow, most of those people are from overseas, which is odd for a USA based publication. I would love to see more North American support for this fine publication. Most of you will find a flyer included with this issue in an attempt to get your support. We also have a much improved and informative quarterly put out by T/SUNG, Bob Swoger, Don Lambert, Abed Kahale and

others have seen to the increasing quality of this newsletter. Right now they need new members and readers for T/SNUG so that this can be a continuing operation. Please give them your support. We are in the process of obtaining more overseas readers for UPDATE!, as well as increasing our readership here in North America. We are the largest magazine left in the world (to my knowledge) that covers all of the Sinclair and Cambridge computers. I hope to become even better known in the next few months. Other than

We are the largest Sinclair magazine left in the world

supporting Sinclair dealers, user groups, clubs and computer shows... your publications are your best way to see that new items and progress are made for the computer you use. We have way out-lasted the TI 99/4A, Atari 400/800, etc.. I want to see us continue. This is not pessimism; this is what we should do.

Very little (maybe nothing) new has come out this last year that I am aware of for the TS-1000. Am I wrong? If so let me know. I do hear rumors once in awhile that someone has done something new, engaged in a project, or doing a

new hardware hack on these little machines, but no one sends in anything for them. Are these just rumor, or is someone keeping a lot of secrets?

For the TS-2068, what do we have new? You have seen new software through us for use of 24 pin printers and graphics. We have also brought to you the chance to have updated versions of TASWORD 2. Next issue we hope to make you aware of upgraded forms of all of WIDJUP's software for the TS-2068. These were written by the late Bill

**let us in on what you are doing
with the TS-2068**

Pedersen. He gave the rights to all of his TS-1000 and TS-2068 software to us to handle, and there is a lot of it. As time permits we will be making it once again available. I need to have more of you let us in on what you are doing with the TS-2068. It is not dead, just in need of vitamins.

For the Z88, this last year saw a new and improved ROM for it that fixed some serious bugs and lockups. It is available from the UK. We also saw internal RAM upgrades of 128K and 512K for it, replacing the standard 32K. There was also the release of the Z88 Source Book, now in its second edition. This was primarily the work of Tim Swenson, with the last typesetting by Crosby and

**new and improved ROM for it that
fixed some serious bugs and lockups**

publishing by UPDATE! Magazine. At the time of this writing Mechanical Affinity has the chance to buy into about 5,000 of these neat little computers. Are any of you interested? Let Frank or Paul of Mechanical Affinity know if you are, so they know if it will be worth pursuing.

We have some BBS support. Files can still be found on CompuServe, and the Club is still there as well as the weekly conference. QBox has made a great showing and justly deserves your support (see their ad this issue). T/SNUG has a BBS out of the Chicago area, check their newsletter or Bob Swoger for this. The INTERNET has a respectable number of Sinclair users worldwide. Buy a

**Buy a modem, get some
software and check these out**

modem, get some software and check these out. For the QL we have public domain programs such as QTPI and QEM.

which we will supply on disk for you for the tiny fee of \$3 if you can not get it locally. Jim Bunkins has a new program, copyrighted but offered freely under easy conditions, that provides off-line file reading for the QL and a BBS.

For one not to have known that the QL is booming would be hard for me to believe. It has a new IDE interface coming out of Croatia. This will allow you to access up to 128 meg. of data off of an IDE hard drive, it will be available from Ron Dunnet and Mechanical Affinity for less than \$200, perhaps closer to \$150. We have the new Super Gold Card with 4 meg. of memory, three times the speed of the Gold Card, 4 disk drive adaptor and a true parallel port with cable. We have Page Designer 3, which makes for easy desktop publishing (not yet perfect, but working on it) on the QL. Text87Plus4 continues to improve, as well as its competition, the Perfection word processor. Editor Special Edition is getting better all the time. LineDesign and DataDesign are drastically improved and headed for more improvements. Miracle is now hard at work on the Graphics Card for the QL, and we hope to see them in time for Christmas. The QXL card for use on an IBM compatible is now in good form with bugs worked out and its SuperBasic clone (much better) now released. It is now a fully useable board. Want to make easy banners on your QL? Then get Banter from Mechanical Affinity or DJC. I could very easily go on for pages. See the review on QLERK, from Wood and Wind Computing for the best finance program I have seen for the QL. This is a live machine; spend a few bucks and find out it is once again becoming state-of-the-art.

A small note for those of you who see the Plotter ad for **The Best Of The Plotter ...**

there will be a companion disk that contains the TS-2068 programs listed in the book, in either LarKen or Oliger format. It is available for \$9.95 pp. If you have little time to type in a program, this is for you. A lot of work by this group has gone into this book and it should be well worth the price. We have Rod Gowen and his group to thank for this. Give them your support, not just because it is a nice thing to do, but because it will be worth the money. So here is some more software for your TS-2068. Give RMG a call for more stuff. I want to see them stay in business.

A Surprise Box of Tricks

by **Hugh Howie**

Z88 Review

Have Sum Fun — Buy a Z88

A long time ago, it just seems like yesterday when I first started getting into computing, there was a new concept coming along, it was called a laptop. Now I always thought a laptop was that long legged blonde from down the street, which just goes to show how naive I was at that time.

Anyway, this laptop was called the Z88. The size of a sheet of paper, an inch thick, and weighed in at just under two pounds. This Z88 was intended for the 'man on the move'. Small enough to fit in a brief case, light, so it was easy to tote around. Ran for up to twenty hours on four AA batteries. Did most of the things that much larger computers did. And it could talk to other computers at the end of the day or journey.

Did I buy one of those marvels? Nope! I was too busy learning how to use my QL.

One evening recently I received a phone call from a friend, and in the process of conversation he mentioned the Z88, and asked me if I knew of anyone who had one for sale. A name came to my mind, and I said so, and was asked to check it out, and was given a price range within which to negotiate. So I got on the phone again (did you ever notice how much time a QL man spends on the Phone?) and the gentleman was willing to sell. He had the Z88, a 128K RAM card, and a printer cable to go with it, and I was able to purchase the lot for \$200 Can., which is about \$150 US. A good deal I thought.

As it was late in the evening by this time, I did not call my friend, but next day I drove a couple dozen miles and paid for and picked up the Z88, still in its original case, complete with manual.

On my arrival home, I phoned "my friend" and was told he had changed his mind and did not want it. (the Z88 I mean not his mind — although I did not think his mind was of much import at that time anyway). So here I was, stuck with a Z88 I did not really want.

After a few days looking at this monster sitting on the shelf, I decided I might as well get some batteries and see what my unwanted piece of equipment would or could do; and did I ever get a surprise.

This little machine has quite a few things 'built-in', such as the main program called 'Pipe-dream', and it really is a dream. it is a Word Processor, a Spreadsheet, and a Database. There is a built in VT52 terminal, Diary, Calculator, Filer, Printer Editor, Clock, Alarm. Goodness - what have I missed out?

Now this Pipe-dream can set up a document in two or three columns, just like the two columns I am using at the moment. With the QL I had to wait for text87 to come along before I could do that, or else use a program called Bi_column_bas with Quill.

This same Pipe-dream, is also the base for the Spreadsheet and Database and Diary. You can take your spreadsheet document and incorporate it with your letter, not only that, but I made up a cable and was able to transfer this document to my QL, and save it to the QL disk.

While you are working on one document, the phone might ring, so after a pre-determined time the little wonder switches off, and when you come back you just start it up again, and it starts up exactly where it left off.

It is possible to have a number of documents going at the same time and a simple 2 or 3-key press, switches from one to the other.

You want the pages numbered as they are printed? You want a special header, or footer? Left margin? You want to know how many pages you have written? Just go to the Options window and you get your answer. You

can't remember what page you are presently working on? The same window will tell you.

The biggest problem I have, is trying to remember all the 'short-cut' key presses to do what can be done in the menus the long way around, but soon you are familiar with them!

How often we would like to see what our finished document looks like, and this is shown at the right of the working screen, just so you see what is happening as you work. How very useful, as you can see how much space there is left for completion of the page. There is an INDEX key from where you may select the APPLICATION, you wish to use, such as Diary, Pipe-dream, Basic, Calculator etc., and a MENU key which shows you the list of the various facilities within that particular application. The menu also tells you what the shortcut combination is, thus by using the Menu, you also learn the shortcut within the menu. Of course you don't have to use the shortcuts, selection may be made in the usual manner by use of the arrow keys.

The Batteries:- I use two sets of rechargeable, each set is of a different make and colour so that there is no mix-up when it comes to changing them. This works fine for me as I had plenty of them anyway, but it is also possible to get a power supply to do the job, but I have been too busy to get around to it as yet, I have been too busy playing with my Toy!

When changing the batteries you have a few minutes to do the task without losing any of your data which may be in the Suspended list or the RAM card. I have not lost anything yet,

and I hope I never do as I have a lot of stuff going on here. It is so very nice to have a document in process, my car expenses, my bank account, and my diary going all at the same time - just requiring a couple key-presses to change quickly from one to the other.

If you want to have some fun in your computing, and also have a useful tool for working with, and one that can go anywhere with you, then you should consider the Z88. IT IS NOT A TOY - IT IS A DARNED GOOD WORKING TOOL FOR THE PERSON ON THE MOVE.

I have talked too much and I need some exercise, so I am going for a walk - with my Z88 of course!

The Z88 and Its Power of Recovery

Well, I was asked to write something for this newsletter and this being so, be not be surprised if I write. So I write. And if you don't like what I write, you can go elsewhere for Your jollies. No suggestions being offered.

When I first started using the Z88, I had no idea in the world as to what I was getting into - sometimes I still wonder if I know what I am into getting.

No matter, a short time after I started using my Z88. I happened to try bouncing it off a hard-wood floor, a most unwise thing to do as the expense of doing so is so great, and being a dedicated Sinclairite, I have an aversion to spending money on little black boxes; you could not prove this by looking at my Computer Room. Anyway, I found that the Z88 DOES NOT BOUNCE, it just falls with a loud nerve shattering THUNKETY, an' jes' sets ther', lookin' up at me with a pained expression. Which, by the way, is no more pained than the expression with which I gaze downwards. (Is there such a thing as a GENTLE thunk? (thunkity?) I thunk not)

However, I appear to have drifted off the topic I started with, so I will now get back to that topic if you are still with me.

I left you at the point where I was preparing to pick up my Z88 from the hard wooden floor where it fell. It was all in one piece thank goodness, but when I started trying to use it, I found that there was little screen representation. If I tapped the bottom of the case, there were a number of lines shooting back and forth across the screen. Sometimes a howl and/or a whistle could be heard emanating from this little do-hickey that is provided for that purpose. Sometimes they (the noises) changed in pitch and intensity. So much so, that those who were with me at that time were blaming my hearing aid for the howls, but I knew that that was not possible as I had just that moment checked it out for myself. Many soft resets and I pass the machine around those present.

Suddenly - one of my friends snorted a shout of glee, and said the damned thing was now OK.

So I get home, and my little box of amazement is still OK, for two days at least that is, when the same thing occurred. Tap on the bottom - lines on screen. This appeared to indicate to me that the power was getting there sometimes somehow. Out with the screw driver, (this should be part of the Sinclair package) to discover that the positive plate of the compartment which holds the batteries, was broken. I guess the weight of the batteries moving in the thunkity (fall) had caused the damage. A little epoxy, followed by a soft reset, and all was in order.

Time passes, until I was in the car one day, just investigating the attributes of my Z88 while waiting for some work to be done on the car, when my Z88 again took

ill. As soon as I get a couple of hundred bucks in my wallet, the car automatically knows it is there and decides to go on strike for twice what I have, (at the very least.)

Anyway, I was sitting in the car with all this stuff being spilled on the screen. Flashes of lines. Lines (rows) of letters, rows (lines) of symbols. Then my Z88 really took sick indeed. I never knew there was so much in such a small space.

A tap here and there, a few - quite a few - soft resets, and all is well. For another couple of days anyway, but then there was a relapse, with once again many eruptions of unwanted undesirable material. I wanted to help my poor machine so much! I tried many taps and caresses in various parts of its anatomy, but all was to no avail, the only sensible emanation I got from my ailing Z88 was the FAIL, flashing at me from the top right hand corner of the screen. I did not have to be told my friend had failed, that was only too obvious, but it was reassuring to know that my friend was not quite dead - yet, that my friend was still able to speak to me. At this stage I was all prepared to send my little friend to my favorite surgeon in Cabool, I am sure many of you have made use of his services at one time or other. Many many resets did not do any good.

This being so, I had a lot of stuff stowed away in various parts of the memory that I would not like others to see, so I decided to try and erase all that stuff, prior to wrapping it up for the Postal Ambulance. So I opened up the little door at the front where the RAM card is installed, removed the 128K RAM cartridge, and then when I tried the machine there was no screen display. None what-so-ever! Plug the cartridge back in, no better, read the manual, AHHH! a soft reset - and all is well !!!

On top of that - I lost not a whit of my secret data. It was all there. And my t-rusty Z88 is all recovered. There does not seem to be any sign of temperature in either Z88 or Yours truly, so I guess the recovery is just about complete. Much to the happiness of all concerned.

We all hope there will not be another relapse. There being only one question left unanswered:-

Wha happent?

The RAM cartridge got dislodged from the fall, and by re-inserting it, you fixed the problem.

JLO With LKDOS Cartridge

by Bob Swoger

Using the LKDOS cartridge with your Oliger disk system will give you extra commands and let you be compatible with all other TS2068s running LKDOS.

Insert the LKDOS cartridge into the cartridge port and turn on the TS2068. Some TS2068s will not initialize when the LKDOS and SAFE boards are used together. If the TS2068 seems to *lock up* on power up, you will need to modify either the LKDOS or the SAFE board as described below.

The reason for the problem is that both boards are trying to initialize at once. Both boards have a reset circuit

that makes them become active at power up.

If you have a power up problem when the LKDOS is installed, you can add a disable switch to the LKDOS cartridge.

To add a disable switch, connect a small wire to the unused hole in the PC board near pin 1 on the 74LS74. This hole is between the notched end of the 74LS74 and the 470 ohm resistor next to it. Carefully scrape the green solder mask off the pad and solder the wire to it. You can add a miniature switch to ground this wire to disable the LKDOS. The ground trace runs around the edge of the solder side of the cartridge.

If you turn on the TS2068 with the switch disabled, you will have to initialize to the cartridge with the command `RANDOMize USR 96` after power up.

By the way, you don't need to use `RAND USR 100: OPEN #4, "dd"` when running LKDOS, just put `RAND USR 100:` in front of all commands.

An alternate method of fixing the initialization problem is to disable the power-on reset circuitry on the SAFE board. This way is really better because the LKDOS cartridge has special software to initialize the SAFE board after it has initialized itself on power up.

The easiest way to do this is to remove the 74HCT74 on the SAFE board from its socket and bend pin 1 out. Put the IC back into its socket and wire pin 1 to +5V. Pin 14 on the same IC has +5V on it so you can just connect these two together with some fine wire. If you don't want to solder it, just use a few turns of wire on each pin.

Now, if you turn on the TS2068 while pressing "i", the LKDOS will initialize the SAFE board after it has initialized itself. If you load an AUTOSTART program with LKDOS though, it will not initialize SAFE. Use the `RESTORE` command in SAFE to initialize SAFE.

When using the snapshot button, only have the DOS that you want enabled to respond to the NMI as the LKDOS can also perform NMI saves.

If you are using the LKDOS with the SAFE board enabled, you shouldn't use LKDOS commands that use `PRINT #4:` such as windows, printer driver, sequential-files or other commands preceded by `PRINT #4` (use `RAND USR 100:` to precede commands). This is because the vectors for these commands share the same memory patch area as the JLO NMI vector and they will cause the JLO NMI to conflict. When using these LKDOS commands, disable the SAFE board.

Sinclair Rides Internet

by John Pazmino, LIST

Since joining INTERNET, I came across several sources for Sinclair news and help. These are in the forums circulated via INTERNET various sites tied to INTERNET. For the most part the material relates the Spectrum and is dominated by British users. Apparently, there are few or no Sinclair clubs left in England; all the users seem to be solitary hobbyists,

The room for Sinclair discussions is `COMP.SYS.SINCLAIR`. This is in the division for computer platforms, along with Amiga, NeXt, Sun, and the others. It functions like an ordinary BBS room, except that you enter thru your INTERNET link. Please note that your INTERNET carrier may offer only certain of the forums and you may have to request a feed from `COMP.SYS.SINCLAIR`.

The sites are computer systems that allow the caller to enter directly and fetch material from them. These are accessed via `FTP`, `GOPHER`, or `WWW`. These are features which must already be offered by your INTERNET carriers if you have only a low level link they may be unavailable. Several of these are:

`HTTP://FTP.NVG.UNIT.NO/PUB/SINCLAIR/DOCS`
`HTTP://WWW.NVG.UNIT.NO/SINCLAIR/SPECTRUM`
`HTTP://WWW.GS.UMD.EDU/USERS/FMS`

✓ `FTP://FTP.NVG.UNIT.NO/PUB/SPECTRUM`
`FTP://WUARCHIVE.WUSTL.EDU/SYSTEMS/SINCLAIR`
`FTP://OAK.OAKLAND.EDU/PUB/MSDOS/EMULATORS`
`FTP://FTP.SUN.AC.ZA/PUB/MSDOS/ZX`
`FTP://FTP.IJS.SI/PUB/ZX`
`GOPHER://GOPHER.NVG.UNIT.NO`

The addresses extend to the lowest directory on the system. From there you must do a catalog listing to see what actual files are loaded. These are updated or changed continually.

Software at these sites is casually distributed. The original publishers long ago went out of business, leaving their products for the Sinclair community.

One peculiarity of this news and help on INTERNET is that for the most part it is out of reach from a regular Spectrum machine! Except for on-line message posting and downloading the smallest text files the spectrum is simply too modest a computer for heavy INTERNET work. So how do Sinclairs hang out on INTERNET?

Well, by now there are few native Sinclair machines left. Most have been discarded in favor of IBMs. Correspondents use the IBMs for the telecons thru INTERNET. Then they run Spectrum emulators on the PCs to use the stuff they downloaded.

Christmas Return Labels

by Greg Dertz & Bob Swoger

Merry Christmas to all! It may seem like I'm jumping the gun a little by wishing you a Merry Christmas now. However, if you are like me, it will probably take you until January to get this program entered into old TS2068.

Around Christmas time, our postage bill gets very large. With all of those Christmas cards, we send a lot of mail during the months of November and December. The cost of all that mail is one thing, but having to hand write our return address on all of that mail is too much. Sure, we could go out and get some ready-made return labels, or

even a rubber stamp, but those do not show the Christmas spirit. What we need is a Christmas return address label maker. That is what this program does.

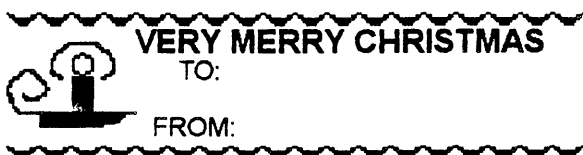
This Program will make any number of return address labels on 15/16 inch pressure sensitive labels. The labels must be one-up, meaning only one across the page, and cannot be any larger than 3-1/2 inches. The text of the label is variable and entered when the program is run. In addition to the text of the label, the program also adds a small, graphically printed, picture to the label. Currently,

the program has four such pictures in its library. but the program may be easily modified to add additional pictures.

The picture is printed using a graphic area of 32 X 40 dots. The picture is placed into the program using a READ DATA statement pair in lines 250 to 260. To add additional pictures, one must change line 40 so that MP = equals the number of pictures to look for. One may then add additional DATA statements to the end of the program which contains the encoded new pictures.

At the top and bottom of the label is a graphic scroll which frames the label. This scroll is of a variable length and its length is calculated from the length of the text to be printed. The text itself is entered when the program is run. The text has a maximum of four lines, but blank lines may be entered if required. The first line is printed in the emphasized mode which calls attention to the line. The remaining three lines are printed compressed, which allows printing the most amount of information on the line. The program was written for a Legend 1080, but should also run on EPSON printers with Graph Trax 4, Legend 880, Gemini 10X or probably any FX-80 or RX-80 Epson compatible printer.

In addition to return address labels, we have also used the program to print out Christmas gift tags. We enter the four lines as follows.



This way, we now have blank, stick-on labels that may be filled out later and attached to Christmas packages.

```

0 REM Put your TASMAN B CPI printer driver code
in this location. Lines 5 through 7 will POKE the
code into Hi-RAM.
4 LET PR = PEEK 23635+256*PEEK 23636:LET PR=PR+5
5 CLEAR 64715
5 LET PS=VAL "PEEK 23635+256* PEEK 23636": LET
PS=VAL "PS+5":LET PR=VAL "64716-PS"
6 FOR I=PR TO (PR+651):POKE (I +38001),PEEK I:
NEXT I
7 RANDOMIZE USR 64719
10 REM Christmas Return Label Generator V1.0T
Written By Gregory A. Dertz & Robert E. Swoger
November 23,1985
40 LET MP=4
50 DIM AS(4,36): DIM S(12): DIM K(MP,4,40): DIM
X(4)
60 REM This Is The Data For The Upper And Lower
Scroll
70 FOR I=1 TO 12
80 READ S(I)
90 NEXT I
100 DATA 64,32,48,24,28,28,28,2 8,24,48,32,64
110 LET LC=1
120 CLS : PRINT " Welcome To The Christmas"
130 PRINT " Return Address Label Program.",,,,
140 PRINT " I will first ask for your name and
address(4 lines max.), then "
160 PRINT "print out the number of return "
170 PRINT "address labels requested.",,,,
180 PRINT "The first line of the label will"
190 PRINT "be printed emphasized, the"
200 PRINT "remaining three lines will be"
210 PRINT "printed compressed." ,,,,
220 PRINT " To use me you must have labels"

```

I have written a second program that comes in handy when designing and programming the pictures. This program prints out a continuous stream of graph paper that is 40 squares wide. Using this paper, one may design the picture into decimal characters.

With these two programs, one may create any number of unique labels for any occasion. Happy Label Mailing

I was very impressed one year when Stan Lemke printed one of my labels from one of his clients thinking that it was the result of one of his programs! It gave Greg and I a GOOD FEELING!

The program below is to be used with the LarKen L3 Disk Drive interface and the modified TASMAN B CPI printer interface mentioned in the January 1993 issue of UPDATE! Magazine. It is not necessary to do any Peeks and POKes into the LarKen LKDOS RAM area as this program contains the printer driver code in the line 0 REMark statement.

If you do not obtain this program from UPDATE! Magazine, you must load the code yourself into the program by making a line 0 REMark statement with 652 spaces. type in the rest of the program and save it by typing GOTO 9990. Next, load your TASMAN CPI printer driver code. Finally, execute the following program in the immediate mode:

```

FOR I=26715 TO (26715+651):POKE
I,PEEK(I+38001):NEXT I

```

If the program RUNs OK, SAVE it again by typing GOTO 9990.

```

230 PRINT "that are 1 to the inch and are"
240 PRINT "one-up on the sheet - a roll"
245 REM While the user is reading the above stuff,
start reading the data for the pictures.
250 FOR I=1 TO MP
260 FOR J=1 TO 4
270 FOR X=1 TO 40
280 READ K(I,J,X)
290 NEXT X: NEXT J: NEXT I
300 GO SUB 900
310 CLS : PRINT "EXAMPLE:,,,,," MERRY
CHRISTMAS",,"John, Mary, Jim, & Spot",,"1234 Any
Street": PRINT "This Town, IL 60000",,,,
320 REM Now ask for the return address info
330 FOR I=1 TO 4
340 PRINT " LINE ";I;"? ";: INP UT GS
350 IF GS="" THEN GO TO 365
360 LET X(I)=LEN GS: LET AS(I)= GS
365 PRINT AS(I,1 TO )
370 NEXT I
375 PAUSE 150
380 CLS : REM Now echo the input for confirmation.
390 FOR I=1 TO 4
400 PRINT AS(I,1 TO )
410 NEXT I
420 PRINT : RANDOMIZE USR 64719
430 INPUT "CORRECT? ";T$
440 IF T$="y" OR T$="Y" OR T$="YES" THEN GO TO 470
450 IF T$="n" OR T$="N" OR T$="NO" THEN GO TO 330
460 GO TO 390
465 REM This section will now calculate the length
of the scroll based on the length of the longest
inputted line.
470 LET H=X(1)
480 FOR I=2 TO 4

```

```

490 IF (15/27)*(X(I))>H THEN LET H=INT
((15/27)*(X(I)))
500 NEXT I
510 LET H=5+(INT ((2/3)*H))
520 IF H>22 THEN LET H=22: REM Check for overflow
525 REM Now print the labels
530 INPUT "Number of labels to be printed? ";N
540 PRINT "Insert labels and line up the"
550 PRINT "first label.",,,,
580 REM Now clear the printer and set line spacing
to 8/72 inch so that there will not be spaces
between the lines of the picture
581 LPRINT CHR$ 27;CHR$ 27;"@"; CHR$ 27;CHR$
27;"A";CHR$ 27;CHR$ (8);
585 REM Now then, print all of the labels
590 FOR Z=1 TO N
600 PRINT "LABEL NO. ";Z,: POKE 23692,255
610 GO SUB 840: REM Prints the upper scroll
620 FOR L=1 TO 4
630 LPRINT CHR$ 27;CHR$ 27;"L"; CHR$ (80);CHR$
27;CHR$ (0);
640 FOR C=1 TO 40: REM Prints picture line
660 LPRINT CHR$ 27;CHR$ (K(LC,L ,C));CHR$ 27;CHR$
(K(LC,L,C));
670 NEXT C
680 IF L=1 THEN LPRINT CHR$ 27; CHR$ 27;"E": REM
Prints the first line emphasized

```

```

1000 REM Tree Array LC=1
1010 DATA 0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,1,7,63,255
1020 DATA 255,63,7,1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
1030 DATA 0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,1,3,7,79,223,255,255,255
1040 DATA 255,255,255,223,79,7,3,1,0,0,0,0,0,0,0,0,0,0,0,0,0
1050 DATA 0,0,0,0,0,0,0,0,0,0,0,1,35,239,255,255,255,255,255,255,255
1060 DATA 255,255,255,255,255,255,255,255,255,255,255,255,255,255,255
1070 DATA 0,0,0,0,0,16,48,112,240,240,240,240,240,240,240,240,255,255,255
1080 DATA 255,255,255,240,240,240,240,240,240,240,240,240,240,240,240,112,48,16,0,0,0,0
1090 REM Bells Array LC=2
1100 DATA 0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,1,3,3,7,3,0,7,7
1110 DATA 15,15,31,31,15,15,7,7,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
1120 DATA 0,2,3,3,3,3,7,15,31,63,127,255,255,255,255,248,7,255,255,255
1130 DATA 255,255,255,255,255,255,255,255,255,255,7,0,0,0,0,0,0,0,0,0,0
1140 DATA 0,0,0,152,252,252,248,240,248,252,254,255,255,254,241,15,255,255,255,255
1150 DATA 255,255,255,255,255,255,255,255,255,255,15,1,0,0,0,0,0,0,0,0,0
1160 DATA 0,0,0,0,0,0,0,0,0,0,0,0,0,0,64,64,192,192,192,192,192,192,192
1170 DATA 192,192,192,192,192,192,192,192,216,252,252,216,192,192,64,64,0,0,0,0,0
1180 Rem Sock Array LC=3
1190 DATA 0,7,2,1,7,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
1200 DATA 0,0,0,0,0,0,0,0,0,1,1,29,51,62,12,0,0,0,0,0,0,0,0,0
1210 DATA 0,128,0,0,128,0,60,36,36,60,0,1,1,1,1,0,0,0,0,0,0,0
1220 DATA 0,0,0,48,44,67,135,135,15,31,31,159,127,15,3,0,0,0,0,0,0,0
1230 DATA 0,0,0,0,0,0,0,0,0,0,0,0,0,0,240,80,16,16,0,15,1,1,1
1240 DATA 0,0,0,0,0,129,227,255,255,255,255,255,255,255,255,255,255,255,63,12,0,0
1250 DATA 0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
1260 DATA 0,24,60,126,254,254,254,252,252,248,240,224,192,0,0,0,0,0,0,0,0,0
1270 REM Candle Array LC=4
1280 DATA 0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,7,24,32,64,128,128
1290 DATA 131,132,136,132,131,128,128,64,32,24,7,0,0,0,0,0,0,0,0,0,0,0
1300 DATA 0,1,6,8,16,32,96,96,32,16,8,6,1,0,192,32,16,0,0,0
1310 DATA 207,47,31,47,207,0,0,0,16,32,192,0,0,0,0,0,0,0,0,0,0,0,0
1320 DATA 0,192,48,12,6,2,97,33,33,33,33,65,1,1,1,1,1,1,1,1,1,1
1330 DATA 255,255,255,255,255,1,1,1,1,1,1,1,1,1,1,1,1,1,1,0,0
1340 DATA 0,0,0,0,0,0,0,0,0,0,0,0,0,0,248,248,248,248,248,248,248,248,248,248
1350 DATA 248,248,248,248,248,248,248,248,248,248,240,224,192,128,0,0,0,0,0,0,0,0
9991 CLEAR
9992 RANDOMIZE USR 100: SAVE "XMSLBL.BT" LINE 1
9998 RANDOMIZE USR 100: LOAD "L.B1"
9999 SAVE "XMASLBL" LINE 1

```

```

690 IF L=2 THEN LPRINT CHR$ 27; CHR$ 27;"F";CHR$
27;CHR$ 15;CHR$ 27;CHR$ (27);"G": REM Prints all
other lines compressed
700 LPRINT AS(L)
710 NEXT L
720 GO SUB 840: REM Prints the lower scroll
725 LET LC=LC+1: REM Increments the picture
726 IF LC=MP+1 THEN LET LC=1
730 LPRINT : LPRINT : LPRINT
740 LPRINT CHR$ 27;CHR$ 27;"H"; : RESTORE : PRINT
"PRINTED": NEXT Z
790 LPRINT CHR$ 27;CHR$ 27;"@"; : REM Now DONE, so
reset the printer
800 INPUT "Would You Like More Labels? ";T$
810 IF T$="y" OR T$="Y" OR T$="YES" THEN GO TO 380
820 IF T$="n" OR T$="N" OR T$="NO" THEN PRINT
"O.K. Thank you for using me.": STOP : GO TO 9998
830 GO TO 800
840 LPRINT CHR$ 27;CHR$ 27;"H"; CHR$ 27;CHR$
27;"K";CHR$ 27;CHR$ (12*H);CHR$ 27;CHR$ (0);
850 FOR B=1 TO H
860 FOR I=1 TO 12
870 LPRINT CHR$ 27;CHR$ (S(I));
880 NEXT I: NEXT B: LPRINT : RETURN
900 PRINT AT 21,4;"HIT <ENTER> to continue "
910 LET T$=INKEY$: IF T$="" THEN GO TO 910
920 RETURN

```




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MERRY CHRISTMAS
 TO: All Our Members
 FROM: The Staff And Contributors
 of ZXir QLive Alive!

Daisy Be Good 1

by David Lasso

We are introducing two series of articles, dealing with Bill Jones' suite of Word Processing programs. It is implemented in 2068 BASIC, except for only one (very important) Machine Coded routine. The articles will develop in parallel, when possible; one dealing with the original, unaltered version of Daisy, as received from Frank Davis, Spring of 1992; the other treating our customized version, also in Frank's possession.

Daisy puts the surprisingly many powers of a 2068 at our disposal, making the TIMEX again conveniently useful, reliable, and flexible. Indeed, since Daisy is mainly a Word Processor, we may go on to include similar treatments of Bill's interesting Udbm ensemble of Data Base Managers.

The archival copy of Daisy here has been molested. Therefore, we will explain the operation of "the most original copy" in our files.

No such problem for the second series. Those articles discuss our customized version of Daisy, customized to use our 9-pin printer (Brother M-1109) and LarKen DOS (version - L3).

Now, we can continue to describe the operation of the original Daisy Word Processor, using our 2068 and LKDOS (L3). It comes already set up for Bill's 24-pin printer (Panasonic KXP-1124) and for two disk drives (possibly the same), Program Disk and Data Disk.

"Program Disk" refers to the number (from 0 to 4) of the disk drive, from which Daisy is LOAded, for the Daisy disk contains the many menus, used to convey convenient information, on-line as needed.

So, any necessary customization is limited to DOS conversion (if other than LKDOS,) "stymn.B6" to stylize different printers (other than 24-pin Panasonic,) and "ps.C1", which is the menu, for using "stymn.B6".

There is a problem of which comes first, the chicken or the egg. For, much of the power of Daisy comes from its ability to take advantage of most (or all) of your Epson-compatible printer. But, you can't modify "stymn.B6" and "ps.C1", till the operations and coding of Daisy are well understood, about six months. Refer to Printer Matching in Bill's documentation, which accompanied your purchase, also Smart Text, LKDOS, published in 1989, UPDATE!, under printer control and style changes.

Thus, ENTER your printer description such as "Daisy Wheel", till you are so familiar with printer matching, controlling, and styling, as to be able to write your own "stymn.B6" and "ps.C1".

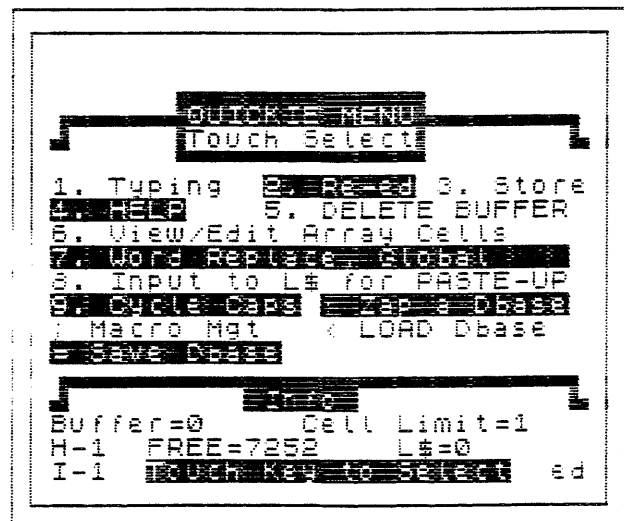
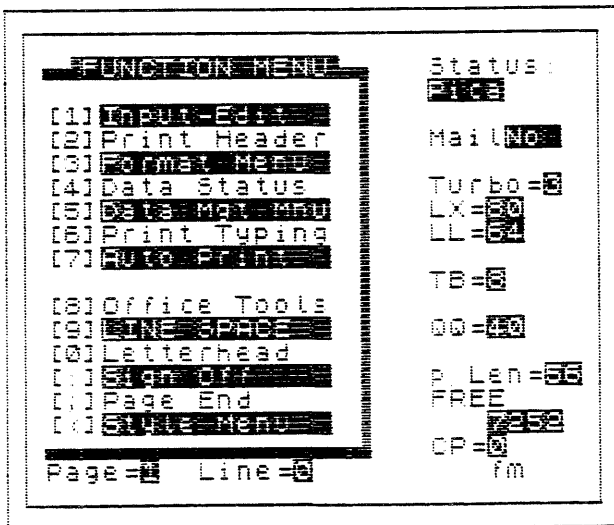
OK, LOAD Daisy from the program disk. Six prompts, for describing your printer, precede the display of our main menu, Daisy's Function Menu.

Option #1 results in a choice between electing #1, Daisy Data Base Manager, or #2. Universal Data Base Manager.

Since this article concerns Daisy, we elect #1 and get the Quickie Menu.

Next time,, we will explore the quickie menu, but below are the first three screens, already mentioned.

```
ELECT:
[1] Daisy DB Manager
[2] Universal DB MGR
```



Daisy Be Good Update Part 1

by David E. Lasso

This series of articles deals with Bill Jones' suite of word processing programs, as customized for our computer system of TS-2068, LKDOS (L3) and 9-pin printer by Brother M-1109. Frank Davis has a copy of our "new and improved" version of Daisy.

We learned, early on, that the small RAM of the 2068 created one bottleneck of an obstacle to the implementation of all the essential features of contemporary Word Processors. Bill's solution is called "extra-memory programming" which can be very disk-intensive, and the original version of Daisy is really strapped by this disk-intensity. Software interrupts continually impeded the flow of work at the keyboard, so much so as to be unsuitable for word processing in these days of "cheap" computer memory.

Our modifications of the original Daisy programs endeavor is to improve upon Bill's rather slavish abuse of LKDOS, in order to gain "extra memory". But, let it be said HERE AND NOW, that while some of Bill's code is annoyingly slow, **it all works, reliably, and exhibits extreme ingenuity.**

Now, we can continue to describe the operations of our new and improved Daisy word processor, using our TS2068, LKDOS (L3) and 9-pin printer Brother M-1109. First of all, there is only one disk called for: DATA DISK. As before, the program disk is the drive (from 0 to 4) from which Daisy is LOAded, but the program derives this information from location 110 of the LKDOS software. Thus, we cut in (roughly) half the number of software interrupts, impeding work flow on our word processor at the keyboard. As before, DATA DISK refers to the number (from 0 to 4) of disk drives, from where input data be sought.

In order to remove this last requirement for LKDOS, simply change the entry point from 9998 to 2070, and replace any RANDOMIZE USR 100: GOTO pd with GOSUB 30. This restores the requests for PROGRAM DISK, which can be answered by your DOS, given suitable conversion of syntax from LKDOS to JLO DOS, for example.

Our version of Daisy has four different names: ManIAd, PO+MM, IN+ED, and dbms, according to which application of word processing the limited RAM of our TS-2068 be called upon to execute.

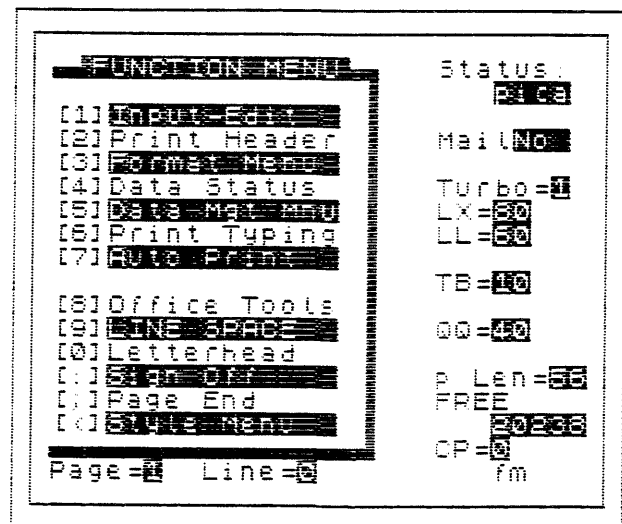
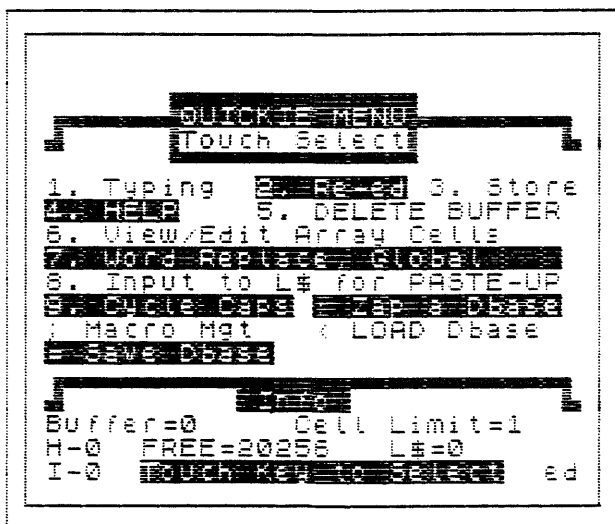
Bill's original version changed itself by four different values for "TURBO", according to the application... The change used DELETE and MERGE of disk files, an agonizingly SLOW process.

Upon LOAding ManIAd, or PO+MM, six prompts lead to our main menu, the FUNCTION MENU. Upon LOAding IN+ED, or dbms, the FUNCTION MENU comes right up immediately.

Option #1 on the function menu loads the QUICKIE MENU on ManIAd and IN+ED. Option #1 is disabled on both PO+MM and dbms.

Before this gets too confusing, let us say that we both SPEEDED UP and SHRUNK DOWN Daisy, while breaking Daisy out into the four main applications of word processing, printing out with Manual Addressing TURBO 3, printing out with Mail Merge addressing TURBO 2, Input/Edit TURBO 1 and dbms, a gateway to data base managers TURBO 0

Next time, we will get into the Quickie Menu.



WINDOWS BY SHADE PART 1

Here is a more recent and sophisticated general purpose LarKen extended BASIC demo which I developed for my LABELMAKER II program upgrade project. To facilitate your running all these new demos, I have eliminated the usual DELETE/MERGE operations and SAVEd the demo implementation routines along with the core subroutines. The fonts used by this demo are new and improved as well. There are two look alike three windows screen display demos. The three windows screen display format of these new demos resembles that of the FILMRECORDER demo, I wrote a few years ago. The first of these two demos is a real three LarKen window demo, each window is set to the size of the screen display section. The second is a pseudo three window demo, this demo uses one window for the whole screen display which includes all three sections of the screen displays. Each of the sections (windows) is a different color, has borders, fixed underlines and titles etc. Each demo has direct data entry. Each screen position where there is an item requiring data entry is highlighted one item at a time sequentially. When the user moves the highlighted bar to the item and presses the 'E' key the bar is removed and a cursor is provided so that data entry can commence. The two PRINT #0 lines are used to provide window handling or data entry options menus. The new menu options that provide for these improved data entry operations are the following:

1. Shift Window to Window
2. Shift Next/Prior item
3. Change item (select from a set of fixed constants)
4. ENTER Data (start data entry at the highlighted bar)
5. Finish (to conclude data entry per file unit)
6. Quit (goto the main options menu).

The real difference between the two demos is the typing speed. More than half the data entry routine is in MC. I first tried to compile the complete data entry routine, but the LarKen extended BASIC functions refused to work properly after they were compiled. The end product is a data entry routine that is part in MC and part in BASIC. It is the part of the data entry routine that is in BASIC, the extended BASIC functions, that makes the difference in typing speed. The first demo's maximum typing speed is slow, only slightly better than PRO/FILE, while the second demo's typing speed is first rate. The better typing speed of the second demo is due to the shortening of the extended BASIC data entry routine due to the removal of all the lines for printing to two additional windows. The second demo's care of subroutines is also shortened by the elimination of all the extended BASIC lines used for window #0 (PRINT #5) and window #1 (PRINT #6). The core routines line numbers for the remaining lines are the same, so the programmer can use the same catalog of core routines lines listings. The MC part of the data entry routine is the same for both the real and pseudo three window demos. This new and improved data entry routine provides for three modes of data entry. These modes are:

1. All Characters, pressing "CS +2" key alternately shifts the cursor from "C" to "L".
2. Capitals Only
3. Numbers Only

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DEMONSTRATION PROGRAM #1

THIS DEMO USES THREE LARKEN WINDOWS
WINDOW #1 (PRINT #5 - YELLOW), WINDOW #2 (PRINT #6 -
RED) & WINDOW #3 (PRINT #7 - GREEN). THE DATA ENTRY
ROUTINE PROVIDES DIRECT INPUT (PRINTING) TO ANY WINDOW.
THREE WINDOW PRINTING MODES. #1. ALL CHARACTERS (UPPER &
LOWER CASE, SYMBOLS & NUMBERS), #2. UPPER CASE ONLY
(SAME AS #1. BUT NO LOWER CASE) & #3. NUMBERS ONLY
(NO UPPER OR LOWER CASE OR SYMBOLS). PRINTS SHIFTED
CHARACTERS " [] & { } ". MAXIMUM ENTRY LENGTH LIMIT, ITEM
HIGHLIGHTING, NEXT / PRIOR ITEM SHIFTING, WINDOW TO WINDOW
SHIFTING, FIXED ITEM CHANGE, FINISH WINDOW & QUIT OPTIONS.
DATE AND TIME ENTRY CHECKING & ERROR NOTICES PROVIDED.

TIMEX BOLD 32 CHAR./ LINE FONT

```

! ! " " ## $$ %% && ' ( ( ) ) * *
++ , , -- .. // 00 11 22 33 44 55
66 77 88 99 :: ; ; << == >> ?? @@
AA BB CC DD EE FF GG HH II JJ KK
LL MM NN OO PP QQ RR SS TT UU VV
WW XX YY ZZ [ [ \ \ ] ] ^ ^ _ _ ee aa
bb cc dd ee ff gg hh ii jj kk ll
mm nn oo pp qq rr ss tt uu vv ww
xx yy zz { { } } © ©

```

**TIMEX ROM (BLUE) TIMEX (BLACK)
FONT FILE NAME - "CHBOLD.CS"
<<<<< THREE WINDOW DISPLAY >>>>>**

<p>ALL CHARACTERS</p> <p>DESCRIPTION LINE #1 - _____</p> <p>DESCRIPTION LINE #2 - _____</p> <p>CONST. CONSULTANTS - _____</p>	<p>UPPER CASE ONLY</p> <p>PHOTOGRAPHED BY - LODMIS-SHADE PHOTOGRAPHY</p> <p>PROJECT - _____</p> <p>OWNER - _____</p>
--	---

NUMBERS ONLY

DATE - / / TIME - : AM

 MON - DAY - YEAR HRS - MIN



Z88 Batteries Feedback

by Mort Binstock

Being a Z88 user, I found your article about using the "Renewal RAY-O-VAC" rechargeable battery very useful. I think this provides a GOOD solution for low cost operation. I'd like to share with others my Z88 battery experiences.

I often take long airplane journeys requiring a computer totally dependent upon its batteries. I balance the benefits of a modern notebook with really great software against my lighter Z88. The Z88 is better suited for the long journeys because its batteries last longer and can be changed on the fly. For a long journey, these advantages can outweigh the Z88's limited primitive software, limited storage, and the nuisance of cable file transfer.

For a long journey, the Z88 battery life wins hands down. I get 4 - 6 hours from the one set before getting the low battery message. I have read that battery life can be safely extended by ignoring the low battery message and waiting until the screen starts to blank. Being conservative, I never tried this.

Actual usage time is indefinite as the batteries can be changed on the fly. A capacitor in the Z88 retains all memories for several minutes without the batteries. This feature allows, when the low battery message appears, battery replacement and continued operation. By carrying enough spare batteries, battery life on a long trip is not an issue.

I have experimented with several techniques to reduce battery cost. Nicads were tried, but are not satisfactory. With 4 AA Nicads (6 volts) the low battery message is always on. I also tried 5 smaller (6 volts)

Nicads. I quickly abandoned Nicads because of their short storage life and no real low battery warning. Nicads are risky, too easy to lose the Z88s stored data.

My best solution is using a 4 D cells (6 volts) external battery pack, slightly larger than the size of the Z88's AC adapter. D cells cost about the same as the required AA batteries and provide a quantum increase in battery life. I purchased from Radio Shack a 4 D cell battery holder and a plug to fit the Z88's power jack, fabricating the necessary cable. The AA's in the Z88 serve as back up.

I have used this set up on long trips and have never exhausted the D cells, I strongly recommend this external pack. I like to plan on using the rechargeable Renewal batteries for shorter trips to obtain portability at minimum cost. My approach for longer trips when a recharge is not an option is to still use the external battery pack.

Chairman's thoughts on this:-

Many thanks for the letter and the information on the RENEWAL batteries.

On the practical side, the number of times that you can recharge the RENEWAL batteries is in proportion to the amount of discharge, the less the discharge the more times it can be recharged. The spec. sheet I got from the company suggested that the 25 times of cycling could be extended to 100 if the discharge was not too great. I called their 800 number and I could not get a technician that could or would give that in an answer that I could relate to voltage. But I got the impression that it was along the lines of 85% of the full charge voltage. 5 volts to turn on the low battery signal means that likely the batteries are discharged to about 83% of their full charge voltage so the low battery light is a good time to change batteries. 0/0.

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Bob Swoger Address on page 2

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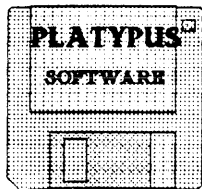
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PC-DRAW a printed circuit designer for the TS-2068 \$9.00 pp.

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WANTED: "The Explorer's Guide" by Mike
Lord and "SPECTRUM Wargaming" by
Owens & Fisher.

PHILLIP JOE
800 BOWIE LN
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WANTED : AERCO disk drive interface for the TS-1000. I
will consider a purchase either with or without drives. I will
even consider a repair-it-yourself.

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2 Beeper kits sounds off with key press - \$10 ea.
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Statistics (unopened)
ZXAS

2 - 2040 printers, 4" roll, (in working condition)
3 - recorder cables 1 - TS-1000 user manual
2 - TS-1000 (don't work, yours for mail cost.)
1 - TS-1000 unknown modification with extra plug and and push-button! (works)
4 - 9V wall power supplies (TS-1000)
1 - 12V wall power supply (TS-2040)

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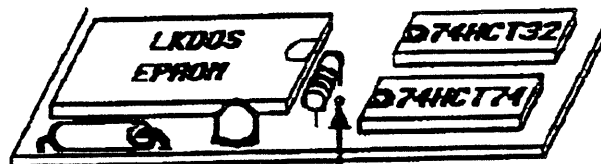
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Cartridge disable **LKDOS**.

by

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ED GREY ENTERPRISES
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PARKERSBURG WV 26104

IQLR (QL)
PO BOX 3991
NEWPORT RI 02840-0987
401 849-3805

Bill Russell (QL)
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CENTER HALL PA 16828

Mark Stueber (QL)
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- 1> Book-Sams Beginner/Intermediate Manual-----\$5
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- 1> DBEASY ON FLP ----- \$10
- 1> Cable C Disk: FLP Filer ----- \$10
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- 1> ZX81 16K RAMPACK ----- \$5
- 1> TS Telecommunications Manual --2068----- \$6
- 10> QUANTUM LEVELS Magazines-(QL)-----\$12.50

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- 1> 6 Pack TS1000 S/W W/Docs---This Includes Shipping!----\$5
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CNSN-1 All Prices Include Shipping! July 30, 1994.

Here Is A Great Collection Of Items For You!

- (1) Q-SAVE fast load amplifier (back panel removed) with both cassette software and EPROM firmware module, all docs \$38
- (1) R.A.M. 2716/2732 EPROM burner and reader (mapped 8-16K) .

This is a really nice board with driver software/firmware and excellent docs which I built but never tested. Has (2) Textool ZIF sockets for burn and (4) Aries ZIF sockets for read, (2) 8255A. Has other options. Requires inexpensive power supply (like Oliger's EPROM burner ps.). Connects via short ribbon cable. I have over \$150 invested in this board requires final adjustment, Docs. \$40

RAM chips 4116-1. Most with slightly shortened leads. About 90 available at \$10 for all

(1) Byte Back Modem. Fully socketed. Built it myself and modified to new address in the 0-16K block. Software, all docs including Kluge data included. Kluging necessitated removal of the case (included) but this modem could be converted back to stock without any trouble. Works fine \$30

(1) Timex 16K RAMPACK, used, in original boxes. \$4 ea 2/\$7. (Add \$3 shipping for both \$1.50 for one)

(6) TS-1000 RAMPACKS all setup for the Hunter bank switch project in TS Horizons. The two small boards of each bank are joined together edge to edge with soldered-in 20 gauge wire jumpers to make a single long (very strong) board. Each long board has the edge connector modified to provide a standard Sinclair feedthru (the toughest part of the project). The entire 6-card stack is bolted rigidly together with small threaded rod and plastic spacers. I never got more than three or four of these boards to run together. That was before I became aware of the evils of excessive bus loading. This might be cured with buffering and really should have been addressed more carefully in the article- Docs, software included. \$15

(3) TS-1000 motherboards. Complete and guaranteed to be OK \$7 each

(1) 300/1200 Baud modem board made by Hayes for an OEM. Still in the anti-static pack. It has diagrams enabling one to add the 1488, 1489 and power supply that the board lacks. A first class piece of hardware. \$15

Use Reference # VVU0491

CNSN-4 Last Updated: November 15, 1994

We Just Keep Adding More Pages! More Items For You!!!

- Heath-Checking (2068) ---\$5 WMJ Stock Plot-----\$5
- EZ Key- UPLoad 2000-----\$5 Lemke TASWORD Converter -\$4
- Inventory (2068)-----\$5 BASIC2TEXT-----\$5
- Mountaineer Clipart #1-\$5 Durel - Saboteur-----\$10
- Mountaineer Taspatch-----\$5 Turbo Esprit-----\$10
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- Crazy Bugs Cart-----\$7.50 Androids Cart-----\$7.50
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Spelling I-----\$4 Penetrator-----\$4
 ICON Package #1-----\$5 TIMEX Flight Simulator-----\$4
 PIXEL PRINT PLUS-----\$4 Checkbook Manager-----\$4
 Trivia 1000-----\$5 Auto Analyzer-----\$4
 ZEUS Monitor/Disassem---\$10 VU CALC-----\$4
 Novelsoft:TIMMACHINE-2068-\$10
 Spectrum Software:-----\$7.50 ea
 TASMAN-TASWORD II
 ZX Computing-Flying Formulae
 Shepherd ZEBRA-ZPRINT 80
 SEGA-Zaxxon
 SEGA-Frogger-----\$5 Per.
 TS PD Lib Tape 2001-----\$5 TS PD Lib Tape 2002-----\$5
 PROFILE 2068-----\$10 New Generation-Trashman---\$5
 PROFILE +3-----\$5
 Hardware:
 1 AMDEK Dual 3" Drive \$25 2040 Printer-----\$25
 1 5.25" DSDD Drive-----\$35

For All Items On This Page-Please Use Reference # JWU0992
 Shipping Is Included Unless Otherwise Noted.

CNSN-9 Last Updated: October 11, 1994

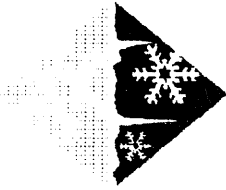
Here Are A Few Great Items For You Collectors!

1-TS1000 w/P/S. 16K RAM, Manual, MI-NOT adaptor installed \$40
 1-Memopak 64K \$40
 1-Digital Dual Disk Drive w-p/s/fan/case/2 drives 40 tr. \$300
 -SS/DD 5.25" (Aerco FD/ZX) w/Aerco Centronics interface w/docs.
 -Bill Boss DOS on disk for the TS1000.
 -This requires the MI-NOT adaptor.
 -PRO/File on disk.
 6-Disks with many programs.
 1-TS2040 Printer in original box \$25
 1-Memotext Module \$25
 1-Memotext on disk by F, Nachbauer \$25
 1-Memocalc Module \$25
 1-Memotech HRG Module Never used-w/book below \$45
 Graphics A to Z Bingham explains HRG
 1-Memo/each Plug-In Keyboard \$40

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 2 ea. Prog. Tool Kit/Graphics - Softsync \$4 ea
 1 Krakit/ 2 Frogger \$4
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 1-Advanced budget mgr. Softsync \$4
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 1-Accounts Payable
 1-Accounts Receivable
 1-Inventory
 3-Blank Cassettes/data \$40
 All in plastic binder



CNSN-11 Last updated October 12, 1994

And Here Are More Collectables

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 The Following are \$1 Each
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 1-IRA Analyzer 1-Nowotick Puzzler 1-The Starter
 1-Stock Market Tech Analysis I 1-Stamp Collector
 1-Computer Coach 1-The Gambler 1-Grimms Fairy Trails
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 1-VU-Calc 1-Coupon Manager 1-Stamp Collector
 1-Chaekbook Manager 1-Stamp Market Gamy
 1-The Starter 1-VU-Calc 1-Conversational Spanish
 1-Coupon Manager 1-Chaekbook Manager
 1-Money Analyzer I 1-Money Analyzer 2
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 1-ZX PRO/File \$10
 1-PRO/File 1000 \$9
 1-Monopoly-(Savage Software) \$9
 1-Ten Good Games-(Savage Software) \$9
 1-Trader Jack -(Savage Software) \$9
 1-Delphic Toot Kit.w/16 Page docs \$15

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CNSN-12

Last Updated: October 12, 1994

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Current **1000** Price List

Page 1
November 16, 1994

DESCRIPTION	STOCK NUMBER	PRICE
COMPUTER-TS 1000 (1000)(H/W)	RMG#0102	29.95
COMPUTER-TS 1000 (AS-IS)(1000)(H/W)	RMG#0102A	10.00
PRINTER-TS 2040 THERMAL (1000(1500(2068))(H/W)	RMG#0103	35.00
TS 1016 16K RAM PAK (1000)(H/W)	RMG#0105	4.00
TIMEX-ATOR THE ABC GATOR (1000)(S/W)	RMG#0109	2.50
TIMEX-BUDGETER (1000)(S/W)	RMG#0114	2.50
TIMEX-CHECKBOOK MANAGER (1000)(S/W)	RMG#0119	2.50
TIMEX-COUPON MANAGER (1000)(S/W)	RMG#0121	2.50
TIMEX-GAMBLER (1000)(S/W)	RMG#0129	2.50
TIMEX-GRIMMS FAIRY TRAILS (1000)(S/W)	RMG#0130	2.50
PAPER-ZX81 ALUMINIZED (1 ROLL)(ZXPRINTER)(ZX81)(RMG#0135	4.00
TIMEX-LOAN MORTGAGE AMORTIZER (1000)(S/W)	RMG#0136	2.50
TIMEX-MIXED GAME BAG I (1000)(S/W)	RMG#0139	2.50
TIMEX-MONEY ANALYZER I (1000)(S/W)	RMG#0140	2.50
TIMEX-POWER PAK 1 (1000(1500)(S/W)	RMG#0143	2.50
TIMEX-VU CALC (1000)(S/W)	RMG#0156	3.00
TIMEX-1000 SOFTWARE 10-PAK (SPECIAL)(1000)(S/W)	RMG#0160	1.50
IPS-DIET PROGRAM (1000)(S/W)	RMG#0202	10.00
KEYTOPS-CRICKET HOUSE (1000) (H/W)	RMG#0257	3.00
BOOK-COMPUTER INTERFACING IN SCIENCE (1000/2068)	RMG#0300	10.95
A&J 1000 MICRODRIVE (H/W)(1000)	RMG#0332	144.95
BOOK-ZX81 BASIC PROGRAMMING (SPANISH)(S/W)(ZX81(RMG#0367	3.00
S&K-KRUNCHER 1000 (S/W)(1000)	RMG#0417	9.95
TIMEX-KASINO KRAPS (1000)(S/W)	RMG#0428	2.50
TIMEX-BACKGAMMON (1000)(S/W)	RMG#0433	3.00
COMPUSA-KEYBOARD BLEEPER KIT (1000)(H/W)	RMG#0436	5.00
SINCLAIR-MATHS II (1000)(S/W)	RMG#0440	4.00
MAGIC BRIDGE-16K RAM PACKS (1000)(1500)(H/W)	RMG#0442	3.00
KEYBOARD-TI SURPLUS (1000)(1500)(H/W)	RMG#0443	25.00
TIMEX-STOCK OPTION ANALYZER (1000)(S/W)	RMG#0505	3.00
MEMOTECH 16K RAM PACK (1000)(H/W)	RMG#0569	15.00
TIMEX-CHESS (1000)(S/W)	RMG#0582	2.50
COMPUTER-YOUR COMPUTER PC8300 (1000 CLONE)(H/W)(RMG#0586	40.00
TIMEX-STATES & CAPITALS (1000)(S/W)	RMG#0587	2.50
TIMEX-CAPITALIZATION MASTER (1000)(S/W)	RMG#0614	2.50
TIMEX-LANGUAGE USAGE (1000)(S/W)	RMG#0626	2.50
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SOFTSYNC-SPACE COMMANDO (1000)(S/W)	RMG#0654	2.50
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SOFTSYNC-RED ALERT! (1000)(S/W)	RMG#0658	2.50
TIMEX-SUPER MATH (1000)(S/W)	RMG#0664	2.50
TIMEX-IRA PLANNER (1000)(S/W)	RMG#0667	2.50
BOOK-THE INS & OUTS OF TS1000 (S/W)(1000(1500)	RMG#0672	3.00
BOOK-TS 1000 OWNERS MANUAL (S/W)(1000)	RMG#0678	4.00
BOOK-BRAIN GAMES FOR YOUR TS (S/W)(1000(1500(206	RMG#0701	4.00

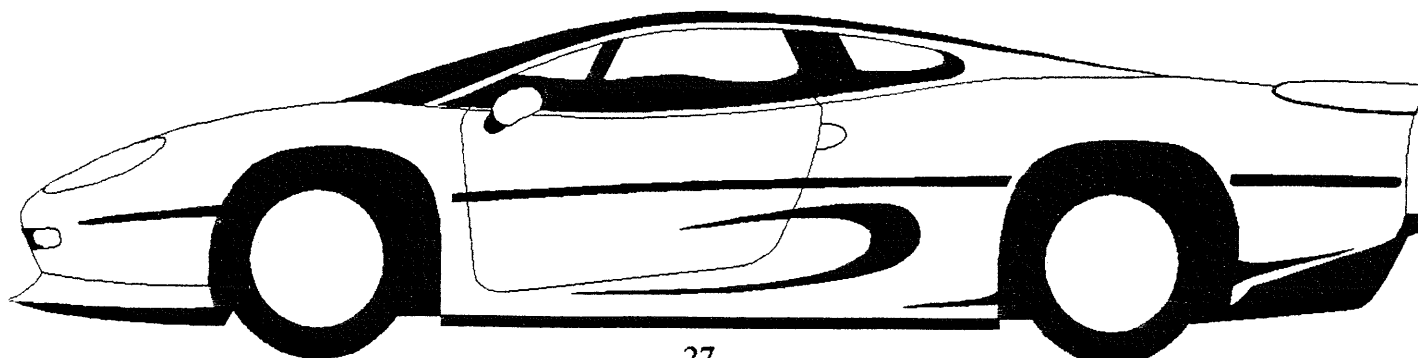
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IPS-PACRABBIT (1000)(S/W)	RMG#0716	2.50
FOOTE-ADVANCED MATH (1000)(1500)(S/W)	RMG#0748	4.00
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TIMWORKS-PRESIDENTIAL CAMPAIGN (1000)(S/W)	RMG#0794	2.00
MINDWARE-GULP (1000)(S/W)	RMG#0797	2.50
BOOK-BASICS OF TS1500/1000 BASIC (S/W)(1000)(1500)	RMG#0810	2.50
BOOK-FIFTY 1K/2K GAMES FOR ZX81/TS1000 (S/W)(1000)	RMG#0811	2.50
BOOK-49 EXPLOSIVE GAMES FOR ZX81 (S/W)(1000)(1500)	RMG#0812	2.50
BOOK-THE ZX81 POCKET BOOK (S/W)(ZX81)(1000)(1500)	RMG#0813	2.50
BOOK-MAKING THE MOST OF YOUR TS1500/1000 (S/W)(1000)	RMG#0814	2.50
BOOK-MAKING THE MOST OF YOUR ZX81 (S/W)(ZX81)(1000)	RMG#0815	2.50
BOOK-THE ELEMENTARY TS1000 (S/W)(1000)(1500)	RMG#0816	2.50
BOOK-THE BEST OF THE PLOTTER (S/W)(1000)(2068)(Q)	RMG#0830	14.95
TIMEX-COLLEGE COST ANALYZER (1000)(S/W)	RMG#0861	2.50
TIMEX-ELECTRIC COST ANALYZER (1000)(S/W)	RMG#0864	2.50
TIMEX-FORTRESS OF ZORLAC (1000)(S/W)	RMG#0865	2.50
TIMEX-FUNDAMENTALS OF MATH (1000)(S/W)	RMG#0866	2.50
TIMEX-HEATING SYSTEM ANALYZER (1000)(S/W)	RMG#0867	2.50
TIMEX-SPELLING BEE (1000)(S/W)	RMG#0871	2.50
TIMEX-MIXED GAME BAG 2 (1000)(S/W)	RMG#0873	2.50
TIMEX-STOCK MARKET TECH ANALYSIS I (1000)(S/W)	RMG#0876	2.50
TIMEX-STOCK MARKET GAME (1000)(S/W)	RMG#0877	2.50
TIMEX-STATISTICS (1000)(S/W)	RMG#0878	2.50
TIMEX-STRATEGY FOOTBALL (1000)(S/W)	RMG#0879	2.50
TIMEX-WORD QUEST (1000)(S/W)	RMG#0880	2.50
TIMEX-PORTFOLIO ANALYSIS (1000)(S/W)	RMG#0884	2.50
TIMEX-MONEY ANALYZER 2 (1000)(S/W)	RMG#0886	2.50
TIMEX-DOOBERRY DOMINO, THE COUNTING PHENOMENO (1000)	RMG#0889	2.50
TIMEX-THE CARPOOLER (1000)(S/W)	RMG#0890	2.50
TIMEX-THE CHALLENGER I (1000)(S/W)	RMG#0892	2.50
TIMEX-AUTOMOBILE ANALYZER (1000)(S/W)	RMG#0893	2.50
COVER-DUST-JASCO TS1000 VINYL (1000)(H/W)	RMG#0910	3.50
POWER SUPPLY-9 VOLT TS1000/1500 (H/W)(1000)	RMG#0920	4.00
TS1000 MOTHERBOARD (1000)(AS-IS)(H/W)	RMG#0922	7.50
CASE-COMPUTER/TS1000-NO PCB (1000)(AS-IS)(H/W)	RMG#0923	1.00
QUICKSILVA-DAMPER/GLOOPER (1000)(S/W)	RMG#0926	2.50
IPS-ZOR (1000)(S/W)	RMG#0928	2.50
CABLE-CASSETTE/COMPUTER SET (1000)(2068)(H/W)	RMG#0933	2.50
PRINTER-ALPHACOM 32 THERMAL PRINTER (1000)(1500)	RMG#0945	39.95
TIMEX-FROGGER (S/W)(1000)(1500)	RMG#0958	2.50
PAD-TS 1000 COMPUTER/RAM DESK PAD (1000)(H/W)	RMG#0999	2.50
NEW KEY UTILITIES (1000)(S/W)	RMG#1004	2.00
MINDWARE-MATRIX PLANNER (1000)(1500)(S/W)	RMG#1007	2.00
SOFTSYNC-2K GAMES (1000)(1500)(S/W)	RMG#1008	2.00
TIMEX-HOME IMPROVEMENT PLANNER (1000)(1500)(S/W)	RMG#1009	2.00
TIMEX-SPELLING I (1000)(1500)(S/W)	RMG#1013	2.00
QUICKSILVA-ASTRO BLASTER (1000)(S/W)	RMG#1016	3.50

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ZQA! 1991 - 1994 Index

VOLUME 1	NUMBER 1	Spring 1991
SNUG is Dead! - Long Live T/SNUG From The Chairman's Disk - SNUG! Oliger Proposes Détente With LarKen Stepping Rate Fix (Disk drives)		Bob Swoger Don Lambert Don Lambert Bob Swoger & Larry Kenny
VOLUME 1	NUMBER 2	Summer 1991
INPUT/OUTPUT - Censorship, Mailing, N/L Exchange, Mile High, Bill Ferreebee Reviews - QL Survivor's Source Book Reviews - International QL Report T/SNUG, QUANTA, and PD-QL Software Converted TS-1016 RAM That Works Cassette LOAD/SAVE Problems Solved I Solar System Review - Computers & Technologies		Bob Swoger Bob Dyl & Frank Davis Bob Dyl Al Feng Anthony Farrell Don Lambert Joan Kealy
VOLUME 1	NUMBER 3	Fall 1991
INPUT/OUTPUT - Gill Parrish, Louis Eisen, Joan Kealy, Bill Ferreebee and Rod Humphreys Reviews - 1 Meg Printer Buffer from Technologic Systems How To Assemble or Replace TS-1000 Parts Cheap Cassette LOAD/SAVE Problems Solved II QLUSTER_LITE		Bob Swoger Bob Swoger Gill Parrish Don Lambert Al Feng
VOLUME 1	NUMBER 4	Winter 1992
INPUT/OUTPUT - G. Chambers, W. Harmer, R. Wisti, H. Scriven, B. Allen and R. Madaris Cassette LOAD/SAVE Problems Solved III Clean Screen Please TS-2068 A Short History of The Z-88 Transfer MS-DOS Files to the TS-2068 QL Directory to Printer PDS DOC ZX-91 10 Years Later No.1 & No.2		Bob Swoger Don Lambert Bob Swoger Dave Bennett George Chambers Butch Wienberg André Baune
VOLUME 2	NUMBER 1	Spring 1992
INPUT/OUTPUT - W. Jackson, M. Kendoll, R. Shade, I. Zachev and J. Shepard Cassette LOAD/SAVE Problems Solved IV An Updated ZX-81 Bench Marking The ZX-81 Driving Your Tax Threshold TAX-I-QL TIP ZX-91 10 Years Later No.3		Bob Swoger Don Lambert Don Lambert Edward Snow Joan Kealy Al Feng André Baune
VOLUME 2	NUMBER 2	Summer 1992
Quanta-Gate? INPUT/OUTPUT - Ken Krack, Glen Hufstedler, Francine Sklar, Charlie Fox, André Baune Don Lambert, Joseph Rampolla, Chuck KereLuck, Paul Anderson, David Leech and David Lebiwitz Cassette LOAD/SAVE Problems Solved V Modem Time 1st MTERM II Refining ZCOMM (MODEMing) TS-2068 to Z-88 Transfer Via Modem ZX-91 10 Years Later No.4		Al Feng Bob Swoger Don Lambert Bob Swoger Joseph Rampolla Dave Bennett André Baune
VOLUME 2	NUMBER 3	Fall 1992
INPUT/OUTPUT - Ken Krack, Alvin Albrecht, Dave Bennett, Hugh Polley, Mort Binstock, James Caldwell, Bob Madaris, Gill Parrish, and Joseph Rampolla BYTE-BACK MD-68 Modem Mineral Oil & The Printer Ribbon Mineral Oil & The Edge Connector		Bob Swoger Bob Swoger Abed Kahale Bob Swoger

Resetting Track 0 on Disk Drives
Writing More Efficiently
ZX-91 10 Years Later No.5
New Commands Effective With JLO SAFE V2.6

Don Lambert
Bill Harmer
André Baune
John Oliger

VOLUME 2 NUMBER 4

Winter 1992

From The Editor's Desk - LogiCall 5.1
INPUT/OUTPUT - Marvin Johnson and Joseph Rampolla
50 TIPS (Programming for the 2068 & Spectrum)

Bob Swoger
Bob Swoger
Don Lambert

VOLUME 3 NUMBER 1

Spring 1993

INPUT/OUTPUT - Don Berry (Master Scribe), Thomas Simon and David Lassov
Compound Interest and Investing
Changing a REM statement in ZX-81 BASIC
Use Some Hitching Bits as a Flagman

Bob Swoger
Don Lambert
Bill Harmer
Bill Harmer

VOLUME 3 NUMBER 2

Summer 1993

SPDOS for RAMEX Mellina K (Disk drive)
RecordKeeping
INPUT/OUTPUT - Help! - Terry Graham, Ed Radtke, Wayne Knaust.
Keep'em Coming - Greg Newkirk, Dan Elliott, Robert Madaris, Fred Henn, Alexander Sweitzer, William Hanes, Albert Syler, and Les Cottrell.
QZX Index
Disk Life
Disk Life

Don Lambert
Abed Kahale
Abed Kahale

Abed Kahale
Alex Burr
Ted Jensen
Edward Snow

VOLUME 3 NUMBER 3

Fall 1993

From The Chairman's Desk - Spectrum AUTOSTART
Re-Inking, Ribbon Resuscitation
Keep'em Coming - Jeffrey Kuhlmann, Daniel Chattin, Dane Stegman and Louis Simon
Inexpensive Z-88 Parallel to Serial Converter
Did You Know? (LarKen Tips)
Tasman 'B' Printer Interface (CPI)
Index Highlights - Articles
Public Domain Library Listings

Don Lambert
John Wase
Abed Kahale
Jay Shepard III
Les Cottrell
R. Swoger & L. Kenny
Abed Kahale
Abed Kahale

VOLUME 3 NUMBER 4

Winter 1993

INPUT/OUTPUT - Help - Jack Payne, William Horner, TV & Monitors, Gilliam Parrish
Keep'em Coming - David Lassov, Francine Sklar, Greg Simmons, Quentin Kent.
MEMOTECH MEMOPAK 64K
TS-2068 Talks to a PC by Modem
QL Hardware Project - Monitors
Tandy CM-11 Monitor
MSDOS to LarKen & MSCRIPT
D.U.S. Disk Utility Software
Turbo Switch for the ZX-81
Using 16K MEMOTECH MEMOPAK
Public Domain Library Update

Abed Kahale
Abed Kahale
MEMOTECH
Abed Kahale
Bob Gilder
William Horner
Les Cottrell
Don Lambert
Tony Willing
Don Lambert
Abed Kahale

VOLUME 4 NUMBER 1

Spring 1994

INPUT/OUTPUT - David Lassov, Leon Howell, D. H. Williamson, Gene Ray, D. G. Smith, Wayne Knaust, Richard Jelen, Robert Shade, Gilliam Parrish, Rod Gowen, SUGWNY
Oliger Utilities
QL Date Gate! - DBEASY - News You Can Use
LogiCall Review
TS-2068 - CMOS On Board
Ni-Cad Charger

Abed Kahale
Bob Swoger
Don Lambert
Al Feng
Abed Kahale
Richard Jelen
Richard Jelen

TIMACHINE and the FDD
QL Video Output Circuit
QL Woes
Moving Ramtop in ZX-81 TS-1000
ZX-81 POKEs and Calls
Frustrated PC Users Flood the Help Lines
D.U.S. Cheat Sheet
Why the Oliger Disk I/F with JLO SAFE is the Best for Your TS-2068
CW Decoder Circuit

James Brezina
Richard Jelen
Nazir Pashtoon
Anthony Oresteen
Anthony Oresteen
Joan Kealy
Abed Kahale
John Oliger
Bob Swoger

VOLUME 4 NUMBER 2

Summer 1994

INPUT/OUTPUT - Richard Jelen, Edward Snow, Robert Gilbert, Gene Ray, Robert Barnett,
Robert Hartung, Rod Gowen, David Lassov
LarKen Disk Interface Circuit
QLuMSi v.4.30
QLUSTer Upgrade
Relocating Machine Code - TS-2068
PARTS Inventory
Did You Try This?
SNUG Notice
T/SNUG QL Public Domain Library

Abed Kahale
Les Cottrell
Al Feng
Al Feng
James Brezina
Richard Jelen
David Lassov
Abed Kahale
Paul Holmgren

VOLUME 4 NUMBER 3

Fall 1994

INPUT/OUTPUT - Wes Brzozowski, Edwin Phillips, Arthur Binstock, Robert Shade, SNUG
Smith's Chart
Computus Interruptus - 1
Batteries for the Z88
Adjust DATABASE Please
Information SuperHighway - Modems
Complex ASCII Rotation
Z-SI/O RS-232 Serial Interface
To PRINT or not to LPRINT

Abed Kahale
Edwin Phillips
Wes Brzozowski
Don Lambert
Al Feng
Abed Kahale
Tim Swenson
Abed Kahale
Jim Brezina

VOLUME 4 NUMBER 4

Winter 1994

INPUT/OUTPUT - Bob Dyl, David Lassov, Dave Bennett, Wes Brzozowski, Thomas Simon,
Rod Gowen, NESQLUG, SNUG, Walter Mossberg
1994 UPDATE!
A Surprise Box of Tricks - Z88
Z88 and its Power of Recovery
JLO with LKDOS Cartridge
SINCLAIR Rides the INTERNET
Christmas Return Labels
Daisy Be Good - 1
Windows by Shade - 1
Z88 Batteries
ZQA! 1991-94 Index to Articles

Abed Kahale
Frank Davis
Hugh Howie
Hugh Howie
Bob Swoger
John Pazmino
Bob Swoger
David Lassov
Robert Shade
Mort Binstock
Abed Kahale



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